

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CABOT MICROELECTRONICS)
CORPORATION,)
)
Plaintiff,)
)
v.) C.A. No. 20-_____
)
DUPONT DE NEMOURS, INC., ROHM) JURY TRIAL DEMANDED
AND HAAS ELECTRONIC MATERIALS)
CMP INC., ROHM AND HAAS)
ELECTRONIC MATERIALS CMP ASIA)
INC. (d/b/a ROHM AND HAAS)
ELECTRONIC MATERIALS CMP ASIA)
INC, TAIWAN BRANCH (U.S.A.)), ROHM)
AND HAAS ELECTRONIC MATERIALS)
ASIA-PACIFIC CO. LTD., ROHM AND)
HAAS ELECTRONIC MATERIALS K.K.,)
and ROHM AND HAAS ELECTRONIC)
MATERIALS LLC,)
)
Defendants.)

COMPLAINT

Plaintiff Cabot Microelectronics Corporation (“CMC”) alleges as follows against Defendants DuPont de Nemours, Inc., Rohm and Haas Electronic Materials CMP Inc., Rohm and Haas Electronic Materials CMP Asia Inc. (d/b/a Rohm and Haas Electronic Materials CMP Asia Inc., Taiwan Branch (U.S.A.)), Rohm and Haas Electronic Materials Asia-Pacific Co., Ltd., Rohm and Haas Electronic Materials K.K., and Rohm and Haas Electronic Materials LLC (collectively, “Defendants”). The allegations herein are made based on personal knowledge as to CMC with respect to its own actions, and upon information and belief as to all other matters.

NATURE OF THE ACTION

1. This is a civil action for patent infringement under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*, of CMC's U.S. Patent No. 9,499,721 (the “'721 Patent”), and for such other relief as the Court deems just and proper.

2. CMC is one of the largest suppliers of consumable materials to the semiconductor industry. Among its many innovations, CMC has for decades been a pioneer in providing chemical mechanical planarization (“CMP”) slurry products to nearly all semiconductor device manufacturers in the United States and throughout the world. CMP slurries play a critical role in the increasingly complex production of advanced semiconductor devices. In particular, CMP slurries, in conjunction with CMP pads, are necessary for the precise leveling and polishing of the numerous metal and dielectric layers deposited on silicon wafers in today’s leading-edge devices. Modern semiconductor manufacturing processes could not be carried out without these CMP slurries, which enable the efficient production of complex, high-performance devices.

3. CMC spends millions of dollars in research and development (“R&D”) annually and has invested considerable capital, labor, expertise and ingenuity in delivering innovative CMP slurry solutions to the semiconductor industry. As part of these extensive R&D efforts, by 2014, the inventors of the '721 Patent developed cutting-edge slurry products for dielectric CMP that improve planarity, reduce defects, speed polishing times, and lower the cost of ownership—all significant benefits to CMC’s customers in addressing the increasingly precise and numerous polishing steps needed in advanced semiconductor device manufacturing. These novel slurries, released by CMC as part of the “iDIEL” family of slurries, were praised by CMC’s customers and have since enjoyed commercial success across the semiconductor industry.

4. Unlike CMC, Defendants failed for years to develop advanced dielectric slurries that address the increasing complexity of semiconductor device manufacturing. For example, in 2016—over two years after CMC’s successful efforts culminating in the ’721 Patent and certain “iDIEL” products—Defendants (and their predecessors) admitted that they had been using an old and inefficient slurry for dielectric CMP for years. Defendants, unsuccessful in their own efforts to develop innovative dielectric slurry solutions, and unable to otherwise compete with CMC’s solutions, opted then to copy CMC’s solutions, and infringe the ’721 Patent. Indeed, Defendants’ marketing materials tout Defendants’ products with the same acidic solutions that CMC had discovered and patented years earlier.

5. Defendants have infringed, and continue to infringe CMC’s ’721 Patent by making, using, selling, and/or offering for sale within the United States and/or importing into the United States products that are covered by the ’721 Patent, including at least the Optiplane 1000 and 2000 series and product models 1600, 1601, 2118, 2300, and 2600 (collectively, the “Accused Products”).

6. CMC contacted Defendants 7 weeks ago detailing their infringement and attempting to resolve this matter without litigation. Defendants, however, have elected to continue their unauthorized use of the ’721 Patent.

THE PARTIES

7. Plaintiff CMC is a publicly traded Delaware corporation with its principal place of business at 870 North Commons Drive, Aurora, IL 60504.

8. Defendant DuPont de Nemours, Inc. is a Delaware corporation with its principal place of business at 974 Centre Road, Building 730, Wilmington, DE 19805.

9. Defendant Rohm and Haas Electronic Materials CMP Inc., a subsidiary of DuPont de Nemours, Inc., is a Delaware corporation with its principal place of business at 451 Bellevue Road, Newark, DE 19713.

10. Defendant Rohm and Haas Electronic Materials CMP Asia Inc., a subsidiary of DuPont de Nemours, Inc., which also does business as Rohm and Haas Electronic Materials CMP Asia Inc., Taiwan Branch (U.S.A.), is a Delaware corporation with its principal place of business at 4F., NO.6, LN. 280, Zhongshan N. Rd., Dayuan Dist., Taoyuan City, 337017 Taiwan.

11. Defendant Rohm and Haas Electronic Materials Asia-Pacific Co., Ltd., a subsidiary of DuPont de Nemours, Inc., is a Taiwan corporation with its principal place of business at 6, Kesi 2nd Rd., Chunan, Miaoli, 350401 Taiwan.

12. Defendant Rohm and Haas Electronic Materials K.K., a subsidiary of DuPont de Nemours, Inc., is a Japanese corporation with its principal place of business at Sanno Park Tower, 2-11-1, Nagata-cho, Chiyoda-ku, Tokyo 100-0014 Japan.

13. Defendant Rohm and Haas Electronic Materials LLC, a subsidiary of DuPont de Nemours, Inc., is a Delaware company with its principal place of business at 455 Forest Street, Marlborough, MA 01752.

JURISDICTION AND VENUE

14. CMC incorporates by reference paragraphs 1-13.

15. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, including 35 U.S.C. § 271.

16. This Court has personal jurisdiction over Defendant DuPont de Nemours, Inc. because DuPont de Nemours, Inc., directly or through affiliates, has committed and is continuing

to commit acts of patent infringement in Delaware, including manufacture, use, sale, offering to sell, and/or importing the Accused Products in Delaware. Personal jurisdiction also exists over DuPont de Nemours, Inc. because it is an entity organized under the laws of Delaware and has purposefully availed itself of the benefits and protections of Delaware state law by transacting substantial business in Delaware, including having its principal place of business in the state.

17. This Court has personal jurisdiction over Defendant Rohm and Haas Electronic Materials CMP Inc. because Rohm and Haas Electronic Materials CMP Inc., directly or through affiliates, has committed and is continuing to commit acts of patent infringement in Delaware, including manufacture, use, sale, offering to sell, and/or importing the Accused Products in Delaware. Personal jurisdiction also exists over Rohm and Haas Electronic Materials CMP Inc. because it is an entity organized under the laws of Delaware and has purposefully availed itself of the benefits and protections of Delaware state law by transacting substantial business in Delaware, including having its principal place of business in the state.

18. This Court has personal jurisdiction over Defendant Rohm and Haas Electronic Materials CMP Asia Inc. because Rohm and Haas Electronic Materials CMP Asia Inc., directly or through affiliates, has committed and is continuing to commit acts of patent infringement in Delaware, including manufacture, use, sale, offering to sell, and/or importing the Accused Products in Delaware. Personal jurisdiction also exists over Rohm and Haas Electronic Materials CMP Asia Inc. because it is an entity organized under the laws of Delaware and has purposefully availed itself of the benefits and protections of Delaware state law by transacting substantial business in Delaware, including establishing substantial, systematic, and continuous contacts and engaging in concerted actions with the other Defendants that are based in Delaware.

19. This Court has personal jurisdiction over Defendant Rohm and Haas Electronic Materials Asia-Pacific Co., Ltd. because Rohm and Haas Electronic Materials Asia-Pacific Co., Ltd., directly or through affiliates, has committed and is continuing to commit acts of patent infringement in Delaware, including manufacture, use, sale, offering to sell, and/or importing the Accused Products in Delaware. Personal jurisdiction also exists over Rohm and Haas Electronic Materials Asia-Pacific Co., Ltd. because it has purposefully availed itself of the benefits and protections of Delaware state law by transacting substantial business in Delaware, including establishing substantial, systematic, and continuous contacts and engaging in concerted actions with the other Defendants that are based in Delaware.

20. This Court has personal jurisdiction over Defendant Rohm and Haas Electronic Materials K.K. because Rohm and Haas Electronic Materials K.K., directly or through affiliates, has committed and is continuing to commit acts of patent infringement in Delaware, including manufacture, use, sale, offering to sell, and/or importing the Accused Products in Delaware. Personal jurisdiction also exists over Rohm and Haas Electronic Materials K.K. because it has purposefully availed itself of the benefits and protections of Delaware state law by transacting substantial business in Delaware, including establishing substantial, systematic, and continuous contacts and engaging in concerted actions with the other Defendants that are based in Delaware.

21. This Court has personal jurisdiction over Defendant Rohm and Haas Electronic Materials LLC because Rohm and Haas Electronic Materials LLC, directly or through affiliates, has committed and is continuing to commit acts of patent infringement in Delaware, including manufacture, use, sale, offering to sell, and/or importing the Accused Products in Delaware. Personal jurisdiction also exists over Rohm and Haas Electronic Materials LLC because it is an entity organized under the laws of Delaware and has purposefully availed itself of the benefits and

protections of Delaware state law by transacting substantial business in Delaware, including establishing substantial, systematic, and continuous contacts and engaging in concerted actions with the other Defendants that are based in Delaware.

22. Venue properly lies in this District under 28 U.S.C. §§ 1391 and 1400(b) because Defendants DuPont de Nemours, Inc., Rohm and Haas Electronic Materials CMP Inc., Rohm and Haas Electronic Materials CMP Asia Inc., and Rohm and Haas Electronic Materials LLC are Delaware companies and therefore reside in this judicial district, and Defendants Rohm and Haas Electronic Materials Asia-Pacific Co., Ltd. and Rohm and Haas Electronic Materials K.K. are foreign entities who may be sued in any judicial district, including Delaware.

COUNT I — INFRINGEMENT OF U.S. PATENT NO. 9,499,721

23. CMC incorporates by reference the allegations of paragraphs 1-22.

24. CMC is the owner and sole assignee of the '721 Patent and has full right to enforce and license the '721 Patent. The United States Patent Office duly and legally issued the '721 Patent on November 22, 2016. A true, correct, and certified copy of the '721 Patent is attached hereto as Exhibit A.

25. Defendants have infringed, and continue to infringe, one or more claims of the '721 Patent, including at least claim 1, either literally or under the doctrine of equivalents, by making, using, selling and/or offering for sale within the United States and/or importing into the United States the Accused Products in violation of 35 U.S.C. § 271(a).

26. For example, Defendants have infringed and continue to infringe, as least claim 1 of the '721 Patent:

1. A chemical mechanical polishing composition comprising:
a water based liquid carrier;
colloidal silica abrasive particles dispersed in the liquid carrier;
a chemical species incorporated in the colloidal silica abrasive particles internal to an outer surface thereof, wherein the chemical species is a nitrogen containing compound or a phosphorus containing compound;
a pH in a range from about 3.5 to about 6;
wherein the colloidal silica abrasive particles have a permanent positive charge of at least 15 mV; and
wherein the chemical species is not an aminosilane or a phosphonium silane.

27. The Accused Products are used for CMP processes in semiconductor device fabrication.

28. The Accused Products comprise “a water based liquid carrier” with colloidal silica particles (such as colloidal silica particles supplied from Fuso Chemical Co., Ltd.) dispersed therein.

29. The Accused Products comprise cationic silica particles that have a chemical species, a nitrogen containing compound, incorporated in the colloidal silica abrasive particles internal to an outer surface thereof.

30. The Accused Products also have a pH of between approximately 3.5-6.

31. The colloidal silica abrasive particles in the Accused Products have a permanent positive charge of at least 15 mV. The Accused Products are advertised as having positively charged colloidal silica particles to improve polishing performance with, for example, a Zeta potential of +26 mV at point of use pH.

32. In the Accused Products, the chemical species (such as ethyloxypropylamine) is not an aminosilane or a phosphonium silane.

33. Defendants have also infringed, and continue to infringe at least claims 3–6, 10–11, 13–14, 18–20, 24, 26–29, 31, 35–37, and 39–44 of the '721 Patent, either literally or under the doctrine of equivalents by making, using, selling and/or offering for sale within the United States and/or importing into the United States the Accused Products in violation of 35 U.S.C. § 271(a).

34. In addition to directly infringing the '721 Patent, Defendants have indirectly infringed and continue to indirectly infringe one or more claims of the '721 Patent. Defendants were notified of their infringement of the '721 Patent on April 13, 2020, when CMC provided Defendants a claim chart comparing the '721 Patent to the Accused Products. Defendants have also had knowledge of the '721 Patent at least since September 28, 2017, when Defendants' affiliate, in the application leading to U.S. Patent No. 10,508,221, specifically cited and described the '721 Patent and admitted knowledge of the features of the asserted '721 Patent claims.

35. In violation of 35 U.S.C. § 271(b), each of the Defendants has actively induced and continues to actively induce others (such as customers of the Accused Products) to directly infringe the '721 Patent, including at least claim 1 by engaging in and actively acting in concert with each other relating to: (a) the marketing, distribution, and/or sale of the Accused Products to customers (including on Defendants' websites); and (b) the instruction and encouragement of customers (such as by Defendants' sales and marketing team) to use the Accused Products in an infringing manner with knowledge that these actions would infringe the '721 Patent.

36. In violation of 35 U.S.C. § 271(c), each of the Defendants has also contributed to and is continuing to contribute to infringement of the '721 Patent by others (such as customers of the Accused Products) by making, selling and/or offering for sell within the United States and/or importing into the United States Accused Products or components thereof, that are especially made

and/or adapted for infringing the '721 Patent and are not staple articles of commerce suitable for substantial non-infringing use.

37. Defendants' infringement of the '721 Patent is deliberate and willful, justifying enhanced damages under 35 U.S.C. § 284 and attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285. Despite being on notice of their infringement of the '721 Patent, each of the Defendants has continued to make use, sell, offer to sell, and/or import the Accused Products knowing and intending to infringe the '721 Patent.

38. Defendants' infringement has caused and is continuing to cause damage and irreparable injury to CMC, and CMC will continue to suffer damage and irreparable injury unless and until that infringement is enjoined by this Court. By this action, CMC seeks to stop Defendants' willful, unauthorized, and improper use of the '721 Patent, and to obtain damages for the significant harm caused to CMC by Defendants' willful infringement to date.

PRAYER FOR RELIEF

WHEREFORE, CMC prays for relief as follows:

- a. That Defendants have infringed and continue to infringe the '721 Patent, either directly or indirectly;
- b. That Defendants' infringement of the '721 Patent has been and continues to be willful;
- c. In accordance with 35 U.S.C. § 284, that Defendants be ordered to pay to CMC all monetary damages to which CMC is entitled (together with pre and post judgment interest), including increased damages for willful infringement;
- d. That this case be declared exceptional in accordance with 35 U.S.C. § 285 and that CMC be awarded and Defendants pay CMC's attorneys' fees;

- e. An injunction prohibiting further infringement of the '721 Patent; and
- f. Such other and further relief as this Court may deem just and equitable.

DEMAND FOR JURY TRIAL

A jury trial is demanded on all claims and issues so triable.

/s John W. Shaw

John W. Shaw (No. 3362)
Karen E. Keller (No. 4489)
SHAW KELLER LLP
I.M. Pei Building
1105 North Market Street, 12th Floor
Wilmington, DE 19801
jshaw@shawkeller.com
kkeller@shawkeller.com
Attorneys for Plaintiff

OF COUNSEL:

Robert C. Scheinfeld

Robert L. Maier

Margaret M. Welsh

Frank Zhu

BAKER BOTT S L.L.P.

30 Rockefeller Plaza

New York, NY 10112

(212) 408 2500

Lisa M. Kattan

Katharine M. Burke

Thomas C. Martin

BAKER BOTT S L.L.P.

700 K Street, N.W.

Washington, D.C. 20001

(202) 639-7700

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